AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method for determining when a moving, airborne mobile platform will enter or exit at least one satellite coverage region, said method comprising:

determining a plurality of boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region;

monitoring a position of the mobile platform and an altitude of the mobile platform as the mobile platform moves along a travel path; [[and]]

determining the proximity of the mobile platform to the satellite coverage region perimeter, taking into account a current latitude, longitude and altitude of the mobile platform;

identifying fade areas within the satellite coverage region by utilizing signal strength data of a signal from a satellite associated with the satellite coverage region[[,]]; and ~~by comparing positional information of the mobile platform, in real time, to predetermined mapped and stored signal strength data associated with position data within the satellite coverage region~~;

determining the proximity of the mobile platform to the fade area and to the perimeter of the satellite coverage region by comparing positional information of the mobile platform, in real time, to predetermined mapped and stored signal strength data associated with position data within the satellite coverage region; and

using the altitude, the latitude and the longitude of the mobile platform to determine a time-to-perimeter measurement of the mobile platform to indicate an approximate time that the mobile platform will remain within the satellite coverage region.

2. (Cancelled)

3. (Original) The method of Claim 1, wherein the method further comprises storing the boundary coordinates in a database accessible by a server system on board the mobile platform.

4. (Previously Presented) The method of Claim 3, wherein said storing the boundary coordinates comprises at least one of:

storing the coordinates in a look up table; and

storing the coordinates in a link list.

5. (Previously Presented) The method of Claim 1, wherein said monitoring a position of the mobile platform comprises periodically determining a latitude, a longitude and an altitude of the mobile platform as the mobile platform moves along the travel path.

6. (Previously Presented) The method of Claim 1, wherein said determining the proximity of the mobile platform to the satellite coverage region perimeter comprises periodically comparing the position of the mobile platform to the boundary coordinates.

7. (Cancelled)

8. (Currently Amended) The method of Claim 1, wherein the method further comprises determining a time-to-perimeter measurement of the mobile platform to indicate an approximate time before the mobile platform will enter a new satellite coverage region.

9. – 11. (Cancelled)

12. (Previously Presented) A system for determining when a moving, airborne mobile platform will enter or exit at least one satellite coverage region, said system comprising:

a database adapted to store boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region perimeter;

a navigational system on board the mobile platform adapted to monitor a position and an altitude of the mobile platform as the mobile platform moves along a travel path; and

an on board server system adapted to:

communicate with the database and the navigational system; and

to determine the proximity of the mobile platform to the satellite coverage region perimeter;

map a plurality of signal strength data throughout the satellite coverage region;

identify a fade area within the satellite coverage region where the signal strength is significantly weaker than an average signal strength throughout the satellite coverage region, and store location information concerning the fade area;

periodically determine the latitude, longitude and altitude of the mobile platform as the mobile platform travels within the coverage region; and

periodically compare the latitude, longitude and altitude of the mobile platform with the stored location information concerning the fade area to determine the proximity of the mobile platform to the fade area; and

using the altitude, the longitude and the latitude of the mobile platform to determine a time-to-perimeter measurement of the mobile platform to indicate an approximate time that the mobile platform will remain within the satellite coverage region.

13. (Original) The system of Claim 12, wherein the database includes at least one of a look up table and a link list.

14. (Previously Presented) The system of Claim 12, wherein the on board server periodically compares the position of the mobile platform to the boundary coordinates and to the fade area.

15. (Cancelled)

16. (Previously Presented) The system of Claim 12, wherein the on board server is further adapted to determine a time-to-perimeter measurement of the mobile platform to indicate an approximate time before the mobile platform will enter a new satellite coverage region.

17. (Cancelled)

18. (Previously Presented) A method for determining an approximate time of arrival of an airborne mobile platform at one or more satellite coverage area boundaries, said method comprising:

determining a plurality of boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region;

storing the boundary coordinates in a database accessible by a server system on board the mobile platform;

monitoring a position and an altitude of the mobile platform as the mobile platform moves along a travel path, the position including latitude, longitude and altitude information concerning a real time position of the mobile platform;

determining the proximity of the mobile platform to the satellite coverage region perimeter;

determining a time-to-boundary measurement of the mobile platform to indicate an approximate time until the mobile platform will arrive at the satellite coverage area boundary;

mapping a plurality of signal strength data for the satellite coverage region;

identifying signal fade areas within the satellite coverage region utilizing the signal strength data and storing location information for the signal fade areas in the database;

periodically comparing the location of the mobile platform to the satellite coverage region perimeter boundary coordinates;

determining the proximity of the mobile platform to the fade areas and to the satellite coverage region perimeter boundary coordinates; and

using the altitude, the latitude and the longitude of the mobile platform to determine a time-to-perimeter measurement of the mobile platform to indicate an approximate time that the mobile platform will remain within the satellite coverage region.

19. (Cancelled)

20. (Original) The method of Claim 18, wherein storing the coordinates in a database comprises at least one of:

storing the coordinates in a look up table; and

storing the coordinates in a link list.

21. - 24. (Cancelled)

25. (Previously Presented) The method of Claim 18, wherein the method further comprises:

identifying an edge effect area within the satellite coverage region utilizing the signal strength data; and

in real time, determining the proximity of the mobile platform to the edge effect area.